

WHAT IS CLAIMED IS:

1. A vacuum insulating double vessel including a vacuum insulating layer provided between an inner vessel and an outer vessel of the double vessel made of a transparent material, and metal films applied to the outer surface of the inner vessel and the inner surface of the outer vessel which face the vacuum insulating layer,

the vacuum insulating double vessel comprising strip-shaped metal film unapplied portions in a vessel height direction in the metal film applied portions, and a plurality of opening vestiges, on the outer vessel, which result from sealing a plurality of openings used for injecting and discharging chemical solutions for applying the metal films, used as air passages and used for evacuating a space between the inner and outer vessels.

2. The vacuum insulating double vessel according to claim 1, wherein the transparent material is glass.

3. The vacuum insulating double vessel according to claim 1, wherein tip tubes are used for the openings.

4. The vacuum insulating double vessel according to claim 1, wherein a plurality of the openings are provided at opposite positions on the outer periphery of the bottom of the outer vessel.

5. A method for manufacturing a vacuum insulating double vessel including a vacuum insulating layer provided between an inner vessel and an outer vessel of the double vessel made of a transparent material, and metal films applied to the outer surface of the inner vessel and the

inner surface of the outer vessel which face the vacuum insulating layer,

the method comprising the steps of locating, at an upper position, one opening of a plurality of openings provided in the outer vessel in a condition where an axis of the double vessel before formation of the metal films is directed to a horizontal direction; injecting a chemical solution for forming metal films into the space between the inner vessel and the outer vessel while exhausting air in a space between the inner vessel and the outer vessel to apply the metal film onto the outer surface of the inner vessel and the inner surface of the outer vessel except for portions of the outer surface and the inner surface in the form of a strip in the direction of the vessel height; locating, at a lower position, one opening of the plurality of openings to discharge the chemical solution; evacuating the space between the inner vessel and the outer vessel of the double vessel through the opening; and then sealing the openings to form a vacuum insulating layer between the inner vessel and the outer vessel.

6. The method for manufacturing the vacuum insulating double vessel according to claim 5, wherein a width of the portions to which the metal films are not applied is regulated by adjusting a rotating angle of the double vessel after the chemical solution for forming the metal films has been injected into the space between the inner vessel and the outer vessel.

7. A method for manufacturing a vacuum insulating double vessel including a vacuum insulating layer provided between an inner vessel and an outer vessel of the double vessel made of a transparent material, and metal films

applied to the outer surface of the inner vessel and the inner surface of the outer vessel which face the vacuum insulating layer,

the method comprising the steps of directing, in a horizontal direction, an axis of double vessel before formation of the metal films; immersing the double vessel into a chemical solution for forming the metal films in a condition where one opening of a plurality of openings provided in the outer vessel is located at an upper position; injecting a first chemical solution for forming the metal films into a space between the inner vessel and the outer vessel through the opening, located at a lower position, of a plurality of the openings until there is reached such a state that portions of the outer surface of the inner vessel and the inner surface of the outer vessel are left in the form of a strip in the direction of the vessel height, while exhausting air in the space between the inner vessel and the outer vessel through the opening located at the upper position; locating, at a lower position, one opening of a plurality of the openings to discharge the first chemical solution through the one opening; locating, at an upper position, one opening of a plurality of the openings provided in the outer vessel; injecting a second chemical solution for forming the metal films into the space between the inner vessel and the outer vessel while exhausting air in the space between the inner vessel and the outer vessel through the opening to apply the metal films to the outer surface of the inner vessel and the inner surface of the outer vessel, portions of the outer surface of the inner vessel and the inner surface of the outer vessel being left in the form of a strip in the direction of the vessel height; locating, at a lower position, one opening of the plurality of openings to

discharge the second chemical solution through the opening; evacuating the space between the inner vessel and the outer vessel of the double vessel thorough the opening; and then sealing the openings to form a vacuum insulating layer between the inner vessel and the outer vessel.